8. TEST PROCEDURE SHEET

	Accumulator incoming & outgoing inspection		company: AIDC		date: 30/12/2008	
	Fill in by hand.		engineer: Raki Huang		location: J2303	
Step	Action	Monitoring	Value	**Result**	Comment	√
1.	**Record test equipment in appendix 1**					
2.	**Record inspection type (is it incoming or outgoing?)**		Incoming /outgoing	Incoming		✓
3.	**Component comes from**	origin		SYSU		✓
4.	**Component goes to**	destination		AIDC		✓
5.	**Part number**					

	Accumulator incoming & outgoing inspection		company:		date:	
	Fill in by hand.		engineer:		location:	
Step	Action	Monitoring	Value	**Result**	Comment	√
6.	**Serial number**					
7.	**Record model type**		QM /FM	FM1	Used for TTCB-QM box afterwards	✓
8.	**Visual inspection,** unaided eye, look at outer surface for - scratches - dents	scratches dents fitting				
9.	**Take pictures of the accumulator from all sides**					
10.	**Accumulator dimension check** (Write the measured values in the Appendix drawings)		TTCB0100_2; ET5998-07; TTCB0100_3			
11.	**Clamp dimension check** (Write the measured values in the Appendix drawings)		TTCB010201			
12.	**Slide dimension check** (Write the measured values in the Appendix drawings)		TTCB010501			

	Accumulator incoming & outgoing inspection		company:		date:	
	Fill in by hand.		engineer:		location:	
Step	Action	Monitoring	Value	**Result**	Comment	√
13.	**Check the bolt types**					
14.	**Check the torque of Clamp Bracket-Collar bolts (NAS1351N08-14)**		22.8 In*lbf -26.9 In*lbf			
15.	**Check the torque of Pipe Fix-Clamp bolts (NAS1351N06-10)**		13.3 In*lbf -15.7 In*lbf			
16.	**Check the torque of Press-Saddle bolts (NAS1351N08-12)**		22.8 In*lbf -26.9 In*lbf			
17.	**Check the heater resistance**					
	1. Resistance of FAC_a	Resistance	20.9±1Ω	21.9Ω		√
	2. Resistance of FAC_b	Resistance	20.9±2Ω	21.6Ω		√
18.	**Check the electric insulation of heater**					
	1. Electric insulation of FAC_a	Resistance	>20Mohm	OPEN		√

	Accumulator incoming & outgoing inspection		company:		date:	
	Fill in by hand.		engineer:		location:	
Step	Action	Monitoring	Value	**Result**	Comment	√
	2. Electric insulation of FAC_b	Resistance	>20Mohm	OPEN		✓
19.	**Check the Peltier element resistance**					
	1. Resistance of Peltier element 1	Resistance	3.4±1Ohm@25℃	4.6Ω		✓
	2. Resistance of Peltier element 2	Resistance	3.4±1Ohm@25℃	4.7Ω		✓
	3. Resistance of Peltier element 3	Resistance	3.4±1Ohm@25℃	4.6Ω		✓
	4. Resistance of Peltier element 4	Resistance	3.4±1Ohm@25℃	4.5Ω		✓
20.	**Check the electric insulation of Peltier element**					
	1. Electric insulation of Peltier element 1	Resistance	>20Mohm	OPEN		✓
	2. Electric insulation of Peltier element 2	Resistance	>20Mohm	OPEN		✓

	Accumulator incoming & outgoing inspection		company:		date:	
	Fill in by hand.		engineer:		location:	
Step	Action	Monitoring	Value	**Result**	Comment	√
	3. Electric insulation of Peltier element 3	Resistance	>20Mohm	OPEN		✓
	4. Electric insulation of Peltier element 4	Resistance	>20Mohm	OPEN		✓
21.	**He leak test:** Measure equipment background level (put cap on tester, without test item being connected)	Background Leak Rate	$<2*10^{-10}$mbar.l/s	$<1\times10^{-10}$ mbar.l/s		✓
22.	**He leak test:** Connect test item and measure leak rate value without spraying helium	Leak Rate	$<2*10^{-10}$ mbar.l/s	$<1\times10^{-10}$ mbar.l/s		✓
23.	**He leak test:** Connect test item and cover it with a plastic bag and measure and record the leak rate value when the plastic bag is filled with helium	Leak Rate	$<1*10^{-9}$ mbar.l/s	$<1\times10^{-10}$ mbar.l/s		✓
24.	**Disconnect the accumulator liquid pipe from the leak tester**					✓
25.	**He leak test:** Measure equipment background level (put cap on tester, without test item being connected)	Background Leak Rate	$<2*10^{-10}$mbar.l/s	$<1\times10^{-10}$ mbar.l/s		✓
26.	**He leak test:** Connect test item and measure leak rate value without spraying helium	Leak Rate	$<2*10^{-10}$ mbar.l/s	$<1\times10^{-10}$ mbar.l/s		✓

	Accumulator incoming & outgoing inspection		company:		date:	
	Fill in by hand.		engineer:		location:	
Step	Action	Monitoring	Value	**Result**	Comment	√
27.	**He leak test:** Connect test item and cover it with a plastic bag and measure and record the leak rate value when the plastic bag is filled with helium	Leak Rate	$<1*10^{-9}$ mbar.l/s	$<1\times10^{-10}$ mbar.l/s		✓
28.	**Disconnect the Peltier pipe from the leak tester**					✓
	End of sheet					

10/01/2009
Additional check during fit checking of FM1 Primary box (Afterwards used for QM box)

AMS-TTCS		Page	15	
		OF	25	
Title	Accumulator Assembly Incoming & Outgoing Inspection Procedure	ISSUE	1.0	

	Accumulator incoming & outgoing inspection		company: AIDC		date: 10/01/2009	
	Fill in by hand.		engineer: Raki Huang		location: J2303	
Step	Action	Monitoring	Value	**Result**	Comment	√
13.	**Check the bolt types**					
14.	**Check the torque of Clamp Bracket-Collar bolts (NAS1351N08-14)**		22.8 In*lbf -26.9 In*lbf			
15.	**Check the torque of Pipe Fix-Clamp bolts (NAS1351N06-10)**		13.3 In*lbf -15.7 In*lbf			
16.	**Check the torque of Press-Saddle bolts (NAS1351N08-12)**		22.8 In*lbf -26.9 In*lbf			
17.	**Check the heater resistance**					
	1. Resistance of FAC_a	Resistance	20.9±1Ω	22.4Ω		
	2. Resistance of FAC_b	Resistance	20.9±2Ω	22.1Ω		
18.	**Check the electric insulation of heater**					
	1. Electric insulation of FAC_a	Resistance	>20Mohm	Over 25MΩ		

	Accumulator incoming & outgoing inspection		company:		date:	
	Fill in by hand.		engineer:		location:	
Step	Action	Monitoring	Value	**Result**	Comment	√
	2. Electric insulation of FAC_b	Resistance	>20Mohm	Over 17 MΩ		
19.	**Check the Peltier element resistance**					
	1. Resistance of Peltier element 1	Resistance	3.4±1Ohm@25℃	4.4Ω		
	2. Resistance of Peltier element 2	Resistance	3.4±1Ohm@25℃	5.2Ω		
	3. Resistance of Peltier element 3	Resistance	3.4±1Ohm@25℃	5.3Ω		
	4. Resistance of Peltier element 4	Resistance	3.4±1Ohm@25℃	4.3Ω		
20.	**Check the electric insulation of Peltier element**					
	1. Electric insulation of Peltier element 1	Resistance	>20Mohm	OPEN		
	2. Electric insulation of Peltier element 2	Resistance	>20Mohm	OPEN		

	Accumulator incoming & outgoing inspection		company:		date:	
	Fill in by hand.		engineer:		location:	
Step	Action	Monitoring	Value	**Result**	Comment	√
	3. Electric insulation of Peltier element 3	Resistance	>20Mohm	OPEN		
	4. Electric insulation of Peltier element 4	Resistance	>20Mohm	OPEN		
21.	**He leak test:** Measure equipment background level (put cap on tester, without test item being connected)	Background Leak Rate	$<2*10^{-10}$mbar.l/s			
22.	**He leak test:** Connect test item and measure leak rate value without spraying helium	Leak Rate	$<2*10^{-10}$ mbar.l/s			
23.	**He leak test:** Connect test item and cover it with a plastic bag and measure and record the leak rate value when the plastic bag is filled with helium	Leak Rate	$<1*10^{-9}$ mbar.l/s			
24.	**Disconnect the accumulator liquid pipe from the leak tester**					
25.	**He leak test:** Measure equipment background level (put cap on tester, without test item being connected)	Background Leak Rate	$<2*10^{-10}$mbar.l/s			
26.	**He leak test:** Connect test item and measure leak rate value without spraying helium	Leak Rate	$<2*10^{-10}$ mbar.l/s			

9. APPENDIX 1 TEST EQUIPMENT

Test equipment	Manufacturer and type	Calibration / functional check	
		Date	Next Date
Multimeter	Agilent 34401A	07/24/2008	07/24/2009

10. APPENDIX 2 ACCUMULATOR DRAWINGS